



PubMed	Nucleotide	Protein	Genome	Structure	PMC	Taxonomy	OMIM	Books
Search PubMed	▼ for						Go	Clear
<input checked="" type="checkbox"/> Limits		Preview/Index		History	Clipboard	Details		

Display	Abstract	▼	Show: 20	▼	Sort	▼	Send to	Text	▼
---------	----------	---	----------	---	------	---	---------	------	---

☐ 1: Gene 1990 Dec 15;96(2):249-55

[Related Articles, Links](#)

Entrez
PubMed

Photoprotein aequorin: use as a reporter enzyme in studying gene expression in mammalian cells.

Tanahashi H, Ito T, Inouye S, Tsuji FI, Sakaki Y.

PubMed
Services

Research Laboratory for Genetic Information, Kyushu University, Fukuoka, Japan.

Related
Resources

Aequorin is a luminescent protein present in the jellyfish *Aequoria victoria* which emits light (at 460 nm) in the presence of Ca^{2+} . We report here that aequorin can be used as a reporter enzyme to monitor gene expression in eukaryotic cells. A cDNA encoding apoaequorin was fused to several eukaryotic promoters, including those of SV40, RSV and the HSV-1 tk gene, and introduced into several cell lines such as CV-1, COS and HeLa. At appropriate times after transfection, the aequorin activities in cell extracts were measured by monitoring the intensity of light emitted at 460 nm when triggered by Ca^{2+} by the use of a photomultiplier photometer. The aequorin assay was shown to be as sensitive as the conventional CAT assay, and the relative activities of various promoters estimated by the aequorin assay were in general agreement with those obtained by the CAT assay. The aequorin assay can be done within 6-7 h from the preparation of extract to the measurement of activity without using radioactive compounds.

PMID: 2269434 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Show: 20	▼	Sort	▼	Send to	Text	▼
---------	----------	---	----------	---	------	---	---------	------	---

[Write to the Help Desk](#)
[NCBI | NLM | NIH](#)
[Department of Health & Human Services](#)
[Freedom of Information Act | Disclaimer](#)

Aug 20 1997 11:11:00